
क्विनालफोस डस्टिंग पाउडर — विशिष्टि
(दूसरा पुनरीक्षण)

Quinalphos Dusting Powders —
Specification
(Second Revision)

ICS 65.100.10

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Price Group 4

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Pesticides Sectional Committee had been approved by the Food and Agriculture Divisional Council.

Quinalphos dusting powder formulations are used in the control of Insect pests of agricultural crops.

Quinalphos dusting powder formulation is generally manufactured to contain 5 percent (*m/m*) of quinalphos.

This standard was first published in 1976. In the first revision issued in 1985, latest packing and marking clauses, and reference to IS 6940 were incorporated.

In this revision, the standard has been brought out in the latest style and format of the Indian Standards, and references to Indian Standards wherever applicable have been updated. It also incorporates two amendments issued to this standard.

The composition of the committee responsible for the formulation of this standard is listed in Annex A.

In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act*, 1968 and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

QUINALPHOS DUSTING POWDERS — SPECIFICATION

(Second Revision)

1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for quinalphos dusting powders.

2 REFERENCES

The standards listed below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

<i>IS No.</i>	<i>Title</i>
IS 1070 : 1992	Reagent grade water — Specification (<i>third revision</i>)
IS 6940 : 1982	Methods of test for Pesticides and their formulations (<i>first revision</i>)
IS 8072 : 2023	Quinalphos, technical — Specification (<i>second revision</i>)

*IS No.**Title*

IS 8190 (Part 1) : 1988 Requirements for packing of Pesticides: Part 1 solid pesticides (*second revision*)

IS 10627 : 1983 Methods of sampling of pesticidal formulations

3 REQUIREMENTS

3.1 Description

The material shall be in the form of homogeneous powder. It shall be free-flowing and devoid of lumps. Quinalphos, technical used in its manufacture shall have been uniformly mixed in suitable fillers, such as talc or pyrophyllite. The material when dusted from a hand rotary duster, issue freely without clogging or bridging.

3.1.1 Quinalphos, technical employed in the manufacture of dusting powder formulations shall conform to IS 8072.

3.2 The material shall also comply with the requirements given in Table 1.

Table 1 Requirements for Quinalphos Dusting Powders

(Clause 3.2)

Sl No.	Characteristic	Requirements	Method of Test, Ref To
(1)	(2)	(3)	(4)
i)	Quinalphos content, percent by mas, <i>Min</i>	Nominal value as declared on the container (<i>see 3.3</i>)	Annex A of IS 8072
ii)	Sieving requirement, material passing through 75 micron IS Sieve [<i>see</i> IS 460 (Part 1)], percent by mass, <i>Min</i>	90	IS 6940
iii)	Bulk density after compacting	Not to exceed the value obtained before compacting by more than 60 percent	IS 6940
iv)	Acidity (as H ₂ SO ₄) percent by mass, <i>Max</i>	0.25	IS 6940
	or		
	Alkalinity (as NaOH) percent by mass, <i>Max</i>	0.04	IS 6940

3.3 Quinalphos Content

When determined by the prescribed in Annex A of IS 8072, the observed quinalphos content, percent by mass of any of the samples shall not differ from the declared nominal value by more than the percent tolerance as indicated below:

Nominal Value, Percent	Tolerance, Percent	
Up to 9	+10 -5	} of the Nominal Value
Above 9 and below 50	±5	
50 and above	+5 -3	

4 PACKING

The material shall be packed according to the requirements given in IS 8190 (Part 1).

5 MARKING

5.1 The containers shall bear legibly and indelibly the following information and any other information, as is necessary under the *Insecticides Act* and Rules:

- Name of the material;
- Name and address of the manufacturer;
- Date of manufacture;
- Batch number,
- Date of expiry;
- Net quantity;
- Nominal quinalphos content, percent (*m/m*);
- Cautionary notice as worded in the *Insecticides Act*, 1968 and rules framed thereunder; and
- Any other information required under the Legal Metrology (Packaged Commodities) Rules, 2011

5.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the

Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

6 SAMPLING

6.1 When freshly manufactured material in bulk quantity is offered for inspection, representative samples of the material shall be drawn and tested as prescribed in IS 10627 within 90 days of its manufacture. When the material is offered for inspection after 90 days of its manufacture, sampling shall be done as prescribed in IS 10627. However, the criteria for conformity of the material when tested, shall be the limits of tolerances, as applicable over the declared nominal value and given under clause 3.3 of the standard.

7 TESTS

7.1 Tests shall be carried out by the methods as prescribed in col (4) of Table 1.

7.2 For determination of quinalphos content by GLC method, start with 25 g of material and extract in Soxhlet apparatus using acetone/toluene for 6 h to 7 h, taking care to ensure that extraction is complete. Recover solvent as much as possible. Transfer to 50 ml volumetric flask. Add 10 ml of internal standard and make up to volume with acetone/toluene and proceed.

7.2.2 For determination of quinalphos content by volumetric method treat sample as given in 7.2 but omit addition of internal standard while making up the volume.

Quinalphos content, percent by mass

$$= \frac{v}{m} \times 2.867$$

where

v = volume, in ml, of standard sodium hydroxide solution consumed; and

m = mass, in g, of sample taken for the test.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

7.3 Quality of Reagents

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

ANNEX A

(Foreword)

COMMITTEE COMPOSITION

Pesticides Sectional Committee, FAD 01

<i>Organization</i>	<i>Representative(s)</i>
Directorate of Plant Protection Quarantine and Storage, Faridabad	DR RAVI PRAKASH (Chairperson)
All India Biotech Association, New Delhi	SHRI SAURABH SINGHAL SHRI SHAH JI DHAR (<i>Alternate</i>)
Central Insecticide Board and Registration Committee, Faridabad	SECRETARY DR VANDANA SETH (<i>Alternate</i>)
Central Insecticide Laboratory, Faridabad	DR ARCHANA SINHA SHRI SUBHASH CHAUDHARY (<i>Alternate</i>)
Consumer Guidance Society of India, Mumbai	SHRI SITARAM DIXIT DR M. S. KAMATH (<i>Alternate</i>)
Crop Care Federation of India, New Delhi	DR J. C. MAJUMDAR
Crop Life India, New Delhi	SHRI ASITAVA SEN Ms NIRUPAMA SHARMA (<i>Alternate</i>)
CSIR — Indian Institute of Toxicology Research, Lucknow	DR SHEELENDRA P. SINGH
Food Safety and Standards Authority of India, New Delhi	ADVISOR (STANDARDS)
FMC India Pvt Ltd, Bengaluru	SHRI CHIRAG PATEL
IDMA Laboratories Limited, Chandigarh	DR INDRA RAI
Indian Agricultural Research Institute, New Delhi	DIRECTOR
Indian Institute of Packaging, Mumbai	DR TANWEER ALAM
Indian Pest Control Association, New Delhi	SHRI UDAYAN GHOSH
Institute of Pesticide Formulation Technology, Gurgaon	DR M. VAIRAMANI
Ministry of Agriculture, Department of Agriculture, Chennai	JOINT DIRECTOR OF AGRICULTURE (RES.) DEPUTY DIRECTOR LAB (<i>Alternate</i>)
National Centre for Integrated Pest Management, New Delhi	DR SUMITRA ARORA
National Institute of Plant Health Management, Hyderabad	DR MAHESH SAINI Ms T. SRIDEVI (<i>Alternate</i>)
Pesticide Manufacturers and Formulators Association of India (PMFAI), Mumbai	DR ARCHANA SRIVASTAVA DR UDAY KUMAR (<i>Alternate</i>)
Regional Pesticides Testing Laboratory, Chandigarh	SHRI V. VASU

<i>Organization</i>	<i>Representative(s)</i>
In Personal Capacity (4-6-90/2/8/2, Sri Devi Nilayam Tejaswinagar Coloni, Attapur, Hyderabad – 500048)	SHRI C. V. RAO
In Personal Capacity (263, Sector 28, Faridabad – 121008)	SHRI VIPIN SAINI
BIS Directorate General	SHRIMATI SUNEETI TOTEJA, SCIENTIST ‘E’/DIRECTOR AND HEAD (FOOD AND AGRICULTURE)[REPRESENTING DIRECTOR GENERAL (<i>Ex - officio</i>)]
<i>Member Secretary</i> SHRI KULDEEP MITTAL SCIENTIST ‘B’/ASSISTANT DIRECTOR (FOOD AND AGRICULTURE), BIS	

Bureau of Indian Standards

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This Indian Standard has been developed from Doc No.: FAD 01 (20057).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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